REMARKS

In the Office Action, the Examiner rejected claims 1-12. By the present Response, Applicants amended claim 1 to clarify features of the present techniques. No new matter was added. Upon entry of the amendment, claims 1-12 will remain pending in the present application. In view of the foregoing amendments and following remarks, Applicants respectfully request allowance of all pending claims 1-12.

Claim Rejections – 35 USC § 102

Claims 1-8, 11, and 12 were rejected under 35 U.S.C. 102(b) as being anticipated by pages 429, 434-437, 452, and 453 of Wolf and Tauber (Silicon Processing for the VLSI Era Volume 1: Process Technology), hereinafter "Wolf." Claims 1 and 12 are independent. Applicants respectfully traverse this rejection.

Legal Precedent

Anticipation under section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 227 U.S.P.Q. 773 (Fed. Cir. 1985). Every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 910 F.2d 831, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). The prior art reference must show the *identical* invention "*in as complete detail as contained in the ... claim*" to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989) (emphasis added).

Independent Claims 1 and 12

Independent claims 1 and 12 recite a two-step soft-bake. In contrast, the Wolf reference teaches the typical *single-step* soft-bake. *See* pages 434-436; Fig. 14. While Wood also teaches the typical post-bake (which occurs after the soft-bake and after the resist has been developed), Wolf is absolutely devoid of a *two-step* soft-bake. *See* pages 434-436 and 452; Fig. 14; *see also, e.g.*, Application, page 4, lines 1-4 (explaining that the photoresist is developed after the soft-bake). Therefore, the Wood reference cannot anticipate the present claims 1-12.

Independent Claim 12

Independent claim 12 specifically recites "a semiconductor wafer comprising a resist layer without craters at the completion of a two-part soft bake." In contrast, while Wood refers to the "pinhole concentration" in the resist layer, Wood does *not* disclose a semiconductor wafer having a resist layer *without craters*. *See* pages 434-436; Fig. 14. The Examiner cites Fig. 14 of Wood in support of his assertion that Wood discloses a resist layer without craters. *See* Office Action, page 3. However, after careful review of Fig. 14 and all of the pages of the cited reference provided by the Examiner, Applicants emphasize that Wood fails to even contemplate a semiconductor wafer having a resist layer *without craters*. *See* Wood, pages 429-437 and 452-453. Therefore, the Wood reference cannot anticipate the claim 12 for this additional reason.

Request Withdrawal of Rejection

In view of these reasons, Applicants respectfully request that the Examiner withdraw the foregoing rejection of claims 1-8, 11, and 12 under 35 U.S.C. 102(b).

Claim Rejections – 35 USC § 103

Dependent claims 9 and 10 were rejected under 35 U.S.C. 103(a) as being unpatentable over Wolf as applied to claims 1-7 above. Applicants respectfully traverse this rejection.

Legal Precedent

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). To establish a *prima facie* case, the Examiner must not only show that a modified reference includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the reference. *See Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985). The Examiner must provide objective evidence, rather than subjective belief and unknown authority, of the requisite motivation or suggestion to combine or modify the cited references. *See In re Lee*, 61 U.S.P.Q.2d. 1430 (Fed. Cir. 2002).

Claims 9 and 10

As discussed, Wolf fails to disclose the second soft-bake step recited in independent claim 1. Therefore, dependent claims 9 and 10 are patentable over Wolf by

virtue of their dependency on an allowable base claim. Furthermore, as acknowledged by the Examiner, Wolf fails to disclose the specific temperature range and time period recited in claims 9 and 10, respectively. *See* Office Action, pages 4-5; Wood, pages 429-437 and 452-453. Thus, dependent claims 9 and 10 are also patentable over Wood because of the subject matter they separately recite. In view of these reasons, Applicants respectfully request that the Examiner withdraw the foregoing rejection of claims 9 and 10 under 35 U.S.C. 103(a).

Lastly, with regard to the Examiner's discussion of obviousness, Applicants emphasize that the specific process conditions of temperature and time associated with the second soft-bake step, as recited in dependent claims 9 and 10, are *not* obvious. *See* Office Action, pages 4-6. To be sure, one of ordinary skill in the art would *not* perform the sole step of a single-step soft-bake, such as in the single-step soft-bake taught by Wood, at the higher temperature and shorter time (of the claimed second step) recited in claims 9 and 10. Further, without the benefit of the present application, one of ordinary skill in the art would *not* employ a two-step soft-bake, in general, or a two-step soft-bake that utilizes the process conditions recited in claims 9 and 10. Lastly, contrary to the Examiner's assertions on pages 4-6 of the Office Action, the unique results (e.g., no resist craters) associated with the new soft-bake (having a second baking step) with the claimed process conditions are discussed in the present specification. *See, e.g.*, Application, page 9, lines 12-21.

Conclusion

If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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